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cates that this variable resembles the shortest period variables of α Centauri in the relatively small range and in the shape of the light curve. The nearest approach to this type of star among the isolated Cepheid variables is probably represented by XX Cygni and β Cephei. The former has a period about one-fourth that of the typical cluster-type variable, and the latter has a period about one-third the usual length.

HARLOW SHAPLEY.

TWO STARS WITH BRIGHT HYDROGEN LINES.

The following two stars have been found to have bright hydrogen lines in their spectra:

	α (1900)	δ	Mag.	Spectrum
Groom 515	$2^h 24^m.5$	$+70^\circ 32'$	8.0	B 4
Boss 1215 (105 Tauri)	5 1.9	$+21^\circ 34'$	6.0	B 5

In both stars $H\beta$ is a strong bright line showing a trace of a dark reversal thru the center; $H\gamma$ is hardly visible, being evidently in a balanced condition between dark and bright, and $H\delta$ is dark.

W. S. ADAMS

A. H. JOY.

NOTE ON THE SPECTRUM OF α CETI.

A number of spectrograms of α Ceti have been obtained in the past few months during its gradual decrease in brightness, the main object in view being to examine the behavior of the lines used in determinations of absolute magnitude. The enhanced line of strontium at λ 4215 proves to be of especial interest. On a photograph taken in November, this line was very prominent having more than half the intensity of the corresponding line in α Orionis. It grew fainter rapidly, however, and on a recent photograph was hardly visible. The "low magnitude" line at λ 4455 has increased somewhat in intensity but observations are difficult on account of the presence of absorption bands. There is a general decrease in intensity of all enhanced lines in the spectrum during the fading of the star's light.

It would be of interest to compare the absolute magnitude values for the star as determined from the spectrum lines with the photometric magnitudes, but this is hardly possible on account of the abnormal character of the spectrum. The variation of the bright hydrogen lines, for example, introduces a variation in the star's light which would not find a counterpart in the magnitude lines. It may be said, however, that the absolute magnitudes derived in this way show a variation in the same direction and of the same order as photometric observations.

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A. H. JOY.

FIVE SPECTROSCOPIC BINARIES.

	α (1900)	δ	Mag.	Spectrum	Radial Velocity
Boss 1131	4 ^h 42 ^m 8	+18° 33'	6.8	G ₀	+35 to +64
Boss 1275	5 14 .8	+29 28	5.7	A ₃ p	Composite
Boss 2193 (57 Camelop.)	8 10 .6	+62 49	5.8	G ₂	-19 to +23
A. G. Cam 3591	10 7 .4	+50 59	6.5	A ₄	-79 to -17
Boss 6129 (8996)	23 47 .5	+74 59	6.6	K ₃ p	-17 to +33

The spectrum of Boss 1275 shows the presence of two components. The maximum relative velocity so far observed is about 240 km.

The spectrum of Boss 6129 is peculiar and probably composite, many of the lines being broad and hazy and subject to variation in these respects. The parallax of this star as derived from the spectrum is +0''.20.

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